This listing of claims replaces all prior versions and listings of claims in this application.

LISTING OF CLAIMS:

Claims 1-10 (canceled).

Claim 11 (original): A phosphonate copolymer comprising

(a) a first unit having the formula

$$-\left(-R^{16}-P^{--}-R^{18}-R^{20}\right)-$$

wherein R¹⁶, R¹⁷, and R¹⁸ are independently O or S; R¹⁹ is phenyl; and R²⁰ is

$$CH_3$$
 ; and

(b) a second unit having the formula

$$-\left(R^{21}-P-R^{23}-R^{25}-R^{25}-R^{25}\right)$$

wherein R^{21} , R^{22} , and R^{23} are independently O or S; R^{24} is phenyl; and R^{25} is

Claims 12-17 (canceled)

Claim 18 (currently amended): An optical or ophthalmic lens as defined in elaim 12, wherein said copolymer comprises, said lens comprising a melt-processable phosphonate copolymer comprising

(a) a first unit having the formula

$$\begin{array}{c|c}
 & R^{17} \\
 & R^{16} - R^{18} - R^{20} - R^{19}
\end{array}$$

wherein R^{16} , R^{17} , and R^{18} are independently O or S; R^{19} is phenyl; and R^{20} is

$$CH_3$$
 ; and

(b) a second unit having the formula

$$\begin{array}{c|c}
 & R^{22} \\
 & || \\
 & R^{21} - P - R^{23} - R^{25} - R^{25}
\end{array}$$

wherein R^{21} , R^{22} , and R^{23} are independently O or S; R^{24} is phenyl; and R^{25} is

Claim 19 (original): A method for preparing a phosphonate homopolymer or copolymer, said method comprising reacting

(a) at least one phosphonic acid halide having the formula

$$R^{26}$$
 P R^{28} R^{29}

wherein R^{26} and R^{28} are independently halogens; R^{27} is S; and R^{29} is a linear or branched C₁-

C₄ alkyl or C₁-C₄ haloalkyl, phenyl, chlorophenyl, p-tolyl, benzyl, biphenyl, or cyclohexyl; with

(b) a bisphenol selected from the group consisting of hydroquinone, resorcinol, 4,4'-dihydroxybiphenyl, 4,4'-cyclohexylidene diphenol, bisphenol A, bis(4-hydroxyphenyl)methane, 2,2-bis(2-hydroxyphenyl)propane, bis P, 4,4'-bis-S, 2,2'-bis-S, 2-hydroxyphenyl-4'-hydroxyphenyl sulfone, dihydroxydiphenyl ether, bis(4-hydroxyphenyl) sulfide, bis(2-hydroxyphenyl) sulfide, dihydroxybenzophenone, 1,5-dihydroxynaphthalene, 2,5-dihydroxynaphthalene, 2,2-bis(3,5-dimethyl-4-hydroxyphenyl) propane, thiodithiophenol, phenolphthalein, 4,4'-bis(hydroxyphenyl)phenylphosphine oxide, α , α '-bis(4-hydroxy-3-methylphenyl)-1,4-diisopropylbenzene, bis E, 2,2-bis(4-hydroxy-3-methylphenyl) propane, bis(4-hydroxy-3-methylphenyl) sulfide, dihydroxydiphenylether, 1,3-bis(4-hydroxyphenoxy) benzene, phenyl HC, t-butyl HQ, 4,4'-thiobis(t-butyl cresol), 2,2'-thiobis(4-t-octylphenol), and any combination of any of the foregoing to yield said homopolymer or copolymer.

Claim 20 (original): A method for preparing a phosphonate homopolymer as defined in claim 19, wherein said phosphonic acid halide is selected from the group consisting of phenyl phosphonic dichloride, phenyl thiophosphonic dichloride, and any combination of any of the foregoing; and said bisphenol is bisphenol A.

Claim 21 (original): A method for preparing a phosphonate homopolymer or copolymer, said method comprising reacting

(a) at least one phosphonic acid halide having the formula

$$R^{26} - P - R^{28}$$
 R^{29}

wherein R²⁶ and R²⁸ are independently halogens; R²⁷ is O; and R²⁹ is a linear or branched C₁-C₄ alkyl or C₁-C₄ haloalkyl, phenyl, chlorophenyl, p-tolyl, benzyl, biphenyl, or cyclohexyl; with

(b) phenolphthalein or 4,4'-bis(hydroxyphenyl)phenyl phosphine oxide to yield said homopolymer or copolymer.

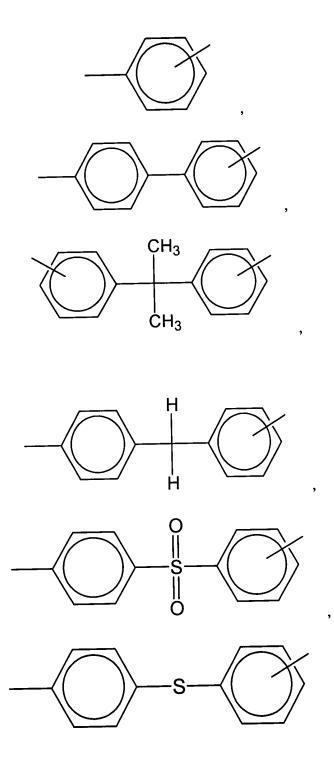
Claim 22 (original): A phosphonate homopolymer or copolymer prepared by the method as defined in claim 19.

Claim 23 (original): A phosphonate homopolymer or copolymer prepared by the method as defined in claim 21.

Claim 24 (original): A method for preparing an optical or opthalmic lens, said method comprising injection molding into the form of said lens, a melt-processable phosphonate homopolymer or copolymer having units of the formula:

$$-\left(-R^{11}-P-R^{13}-R^{15}\right)$$

wherein R^{11} , R^{12} , and R^{13} independently are O or S; R^{14} is a linear or branched C_1 - C_4 alkyl or C_1 - C_4 haloalkyl, phenyl, chlorophenyl, p-tolyl, benzyl, biphenyl, or cyclohexyl; and R^{15} is



or any combination of any of the foregoing.